

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE
HONORABLE BOARD OF PATENT APPEALS AND INTERFERENCES

Application of: Michael G. Lamming et al.) Examiner: Avi M. Gold
)
Appl. No.: 09/682,488) Art Unit: 2157
)
Filed: 09/07/2001) Docket No. A0849-US-NP

Title: META-DOCUMENT MANAGEMENT SYSTEM WITH DOCUMENT IDENTIFIERS

Board of Patent Appeals and Interferences
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

APPEAL BRIEF

Sir:

Appellant respectfully submits this Appeal Brief in the appeal of the present case to the Board of Appeals and Patent Interferences on the Notice dated July 18, 2006.

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I. REAL PARTY IN INTEREST

The real party of interest in the present application is the assignee of the present application, Xerox Corporation.

II. RELATED APPEALS AND INTERFERENCES

There is no related appeal or interference.

III. STATUS OF CLAIMS

Claims 1-26 are on appeal.

Claims 1-26 are pending in this application. Of these, claims 1, 25, and 26 are independent claims.

Claims 1-26 have been finally rejected in an Office Action mailed April 18, 2006 (hereinafter referred to as the "Final Office Action") with similar comments with regard thereto in an Advisory Action mailed July 10, 2006, on the grounds further discussed herein.

IV. STATUS OF AMENDMENTS

Amendments filed March 17, 2005, August 17, 2005, and February 2, 2006 that amended claims 1, 25, and 26 and an amendment filed February 2, 2006 that amended claim 15, have all been entered.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Generally, Appellant's invention recited in independent claims 1, 25, and 26 (where claim 1 is discussed herein as the representative independent claim of independent claims 1, 26, and 26) concerns a method, apparatus, and article of manufacture therefor, for controlling a document service request at a mobile computing device.

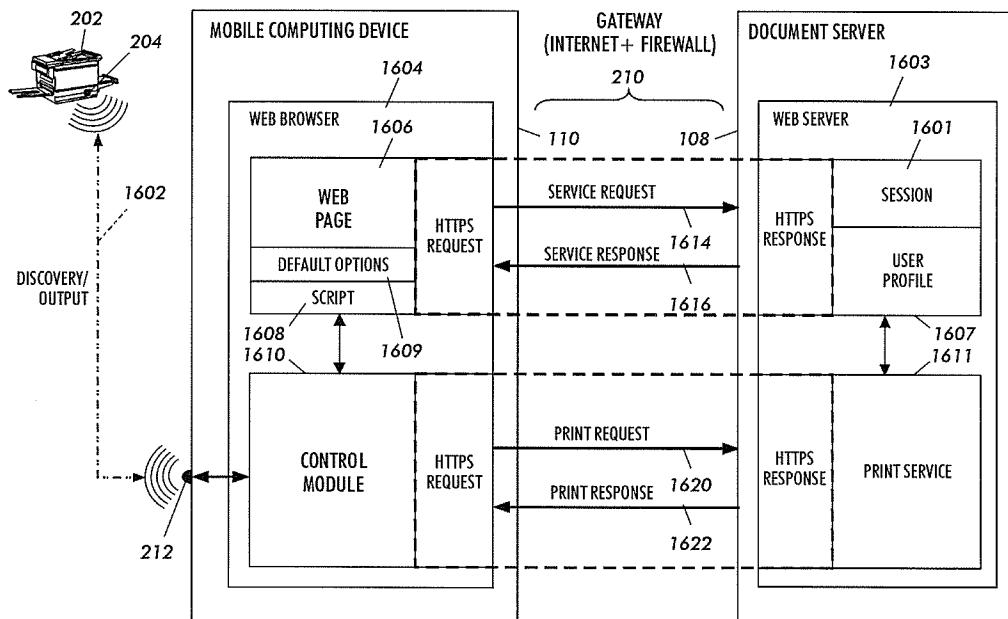


FIG. 16

As illustrated in Figures 16, 18, and 19 of Appellant's specification reproduced herein and described in paragraphs 0115-0141 of Appellant's specification, the method of independent claim 1 recites receiving a user selection directed at a first web page displayed by a web browser operating at a mobile computing device (see reference number 110 in Appellant's Figures 16 and 18). The first web page is a list of document services (see 1800 in Appellant's Figure 18) that may be applied to a selected document identified by a document reference that is accessible on a document server (see reference number 108 in Appellant's Figure 16) that communicates with a web server (see reference number 1603 in Appellant's Figure 16). The document service request is initiated at the mobile computing device in response to the user selection of a document service from the list of document services available on the first web page.

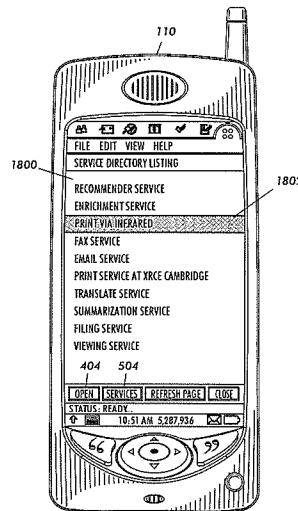


FIG. 18

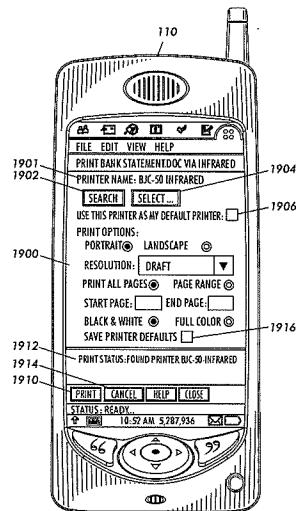


FIG. 19

As recited in independent claim 1, a second web page is displayed with the web browser (see reference number 1900 in Appellant's Figure 19) after initiating the document service request. The second web page, which is received from the web server, (i) identifies parameters associated with the document service request and (ii) embeds therein a control module (see reference number 1610 in Appellant's Figure 16) for communicating between the document server (108) and an output device (see reference number 202 in Appellant's Figure 16), for obtaining device information identifying a type of output device (202) available, and for transmitting the document service request to the document server (108) from the mobile computing device (110).

Further as recited in independent claim 1, the mobile computing device (110) controls, using the control module (1610), a connection between the document server (108) and the output device (202) to transmit there between the selected document in a format suitable for the output device (110), where the mobile computing device (110) establishes the connection with the document server (108) over the first of two communication channels (see reference number 1622 in Appellant's Figure 16) and with the output device (202) over a second of the two communication channels (see reference number 1602 in Appellant's Figure 16).

VI. GROUNDΣ OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1-15 and 17-26 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Lamming et al., U.S. Patent No. 5,862,321 (hereinafter referred to as "Lamming") and further in view of Fogarty, U.S. Patent No. 6,311,180 (hereinafter referred to as "Fogarty").

Claim 16 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Lamming in view of Fogarty as applied to claim 1, and further in view of Wang et al., U.S. Patent No. 6,493,551 (hereinafter referred to as "Wang").

VII. ARGUMENT

Appellant respectfully traverses the rejection of the pending claims 1-26 and submits they are in condition for allowance for the reasons set forth below.

A. Overview Of Cited References

In this section A, Appellant summarizes the references cited in the Final Office Action in rejecting the claims.

A.1 Summary of Lamming

Lamming, which is relied on in the Final Office Action in rejecting claims 1-26, discloses a system and method for accessing and distributing electronic documents. The system includes any number of workstations, file servers, printers and other fixed devices coupled in a network, and a number of portable devices carried by users and coupled to the network by infrared (IR) link. Each portable device emulates its user's personal satchel for documents: the device is programmed to receive and transmit and store document references or tokens, each of which is associated with an electronic document stored in the database. Documents are distributed from one person to another by transmission of document references or tokens, and a document is sent to a printer by beaming that document's reference or token to an IR transceiver associated with the printer. (See Lamming Abstract.) Various embodiments are presented in Lamming for accomplishing the forgoing, some of which are discussed in more detail below.

A.2 Summary of Fogarty

Fogarty, which is relied on in the Final Office Action in rejecting independent claims 1, 25, and 26, discloses a method for dynamically generating a display document to conform to a display device according to viewing preferences of a user of the display device. For example, web pages created for one "display view" (i.e., which defines a display area on a display devices, and is described in display parameters such as the number of characters, the number of character rows, the number of character columns, font and image capability, etc.) may not be used on a different display view because of specific display limitations. In order to display such web pages, they are separately created and/or reformatted for different display views using the disclosed method. (See Fogarty column 2, lines 9-26.) The disclosed method selects display elements from predetermined source contents,

selects formatting characteristics conforming to display limitations of a specific display device, and maps the elements on the display device in a functional and pleasing manner to the user. (See Fogarty column 3, lines 33-39.)

A.3 Summary of Wang

Wang, which is relied on in the Final Office Action in rejecting claim 16, discloses a method for providing basic wireless call delivery service for a user having a mobile device and is roaming in an area not covered by a GSM MoU (i.e., a Memorandum of Understanding between a home GSM network and a visited CDMA network). The method provides that: the user registers with the home wireless provider to establish call forwarding within the home wireless network to a roaming network; and the user visiting a wireless service provider registers on the roaming network to establish a Public Switched Telephony Network (PSTN) bypass through the user's mobile device. Calls are delivered to the user on the roaming network via the PSTN bypass. The method also includes secure means for collecting billing information and billing the user for the services. (See Wang column 1, lines 25-33; column 2, lines 45-54; and column 8, line 64 to column 9, line 20.)

B. The Group Of Claims, Consisting Of Claims 1 (And Its Dependent Claims 2-24), 25, and 26, Are Patentable Over Lamming, Fogarty, and Wang

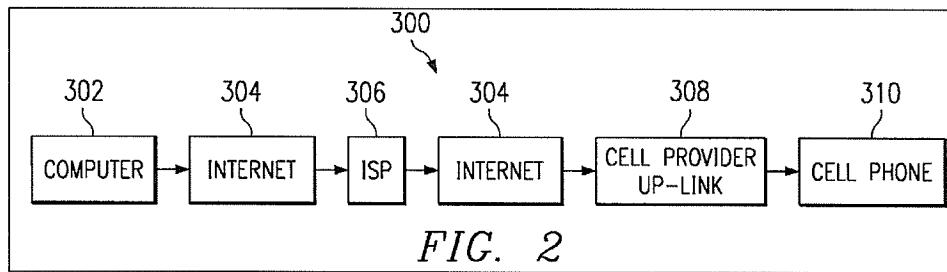
In this section, Appellant traverses the rejection of the group of claims consisting of independent claims 1 (and its dependent claims 2-15 and 17-24 and its dependent claim 16 which is further rejected in view of Wang), 25, and 26 as being unpatentable under 35 U.S.C. §103(a) over Lamming in view of Fogarty. The instant rejection of independent claims 1, 25 and 26 is set forth on pages 2-5, 10-12, and 12-15 of the Final Office Action, respectively.

In rejecting independent claims 1, 25, and 26, the Final Office Action alleges (as to claim 1, at page 4, line 21 to page 5, line 4; as to claim 25, page 12, lines 11-16; and as to claim 26, page 15, lines 11-6) that given the disclosure in Fogarty at column 4, lines 42-67 (reproduced below), and disclosure in Lamming in columns 3-5 and 7-10 (portions reproduced below), it would have been obvious to one of ordinary skill at the time of Appellant's invention to: "use a web browser operating at [a] mobile computing device, a document server communicating with a web server, and a web page from the web server that has embedded therein a control module for communicating between the document server and the output device with the

mobile computing device using the control module." In support thereof, the Final Office Action alleges on page 16, lines 12-16, that Lamming and Fogarty together "allows for [embedding], in a web page, [a] control module for communicating between a document server and output device" because "the communication between a document server and output device is shown in Lamming in column 10, lines 15-49 and the web page received at the mobile device is shown in Fogarty in column 4, lines 42-67".

In the disclosure in Fogarty referred to in the Final Office Action above, Fogarty discloses at column 4, lines 42-67 (with reference to Figure 2 reproduced below) that:

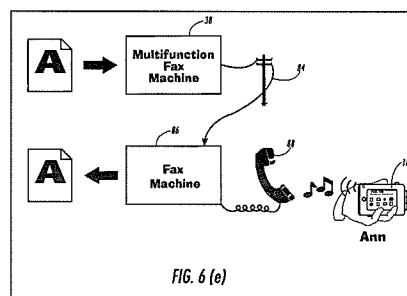
Referring to FIG. 2, a dynamic, conformal, and localized display communication system 300 is shown. The communication system 300 includes a plurality of computer systems and information servers centered around one or more networks. A first computer system 302 is initially used to create an application description file (FIG. 3), e.g., in a particular markup language. The application description file can be transmitted over the internet 304 to a special mapping system 306 which, in some embodiments, may be located at an internet service provider (ISP). The application description file is formatted to describe contents to be displayed on any display device, but not in any single format.



The mapping system 306 may actually contain information for how to conduct conformal, localized display mapping for a particular display device. The mapping system 306 may have a user database which stores a series of user profiles, each user profile defining viewing preferences indicated by a user. The application description file is then mapped by the mapping system 306 into a display document or application (collectively "document"). The document is then transmitted via the internet 304 over a communication link 308 (such as a cellular service provider's up-link channel) to a particular receiving (target) display device 310. In the example shown, the display device 310 is a cell phone, and a Wireless Markup Language (WML) is used by the mapping system 306 for generating the display document. For other display devices, the mapping system 306 may have to create a file in a different manner (e.g., in Hypertext Markup Language (HTML)) as necessary.

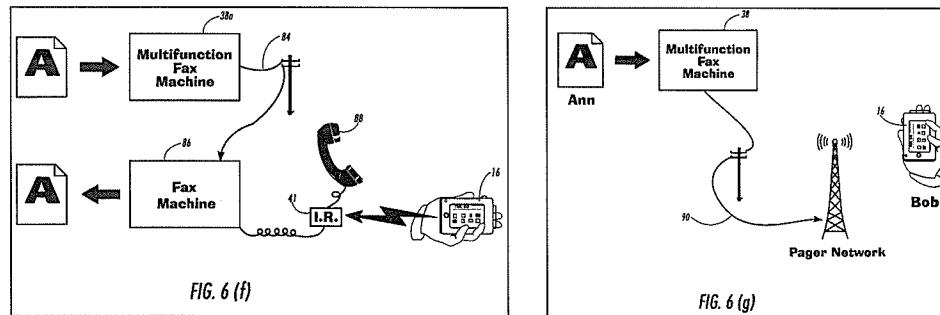
In the disclosure of Lamming referred to in the Final Office Action above, Lamming discloses in column 10, lines 15-29 (which refers to Fig. 6(e) reproduced below) a first embodiment for accessing and distributing electronic documents in which:

In FIG. 6(e), the case where the Tab owner is not in the vicinity of a multifunction fax machine 38 is illustrated. Here multifunction fax machine 38 is linked to fax machine 66 over telephone network 84. Document A has been scanned in and stored electronically in a database accessible by multifunction fax machine 38. Later, Ann is at a location where she needs a hard copy of document A and has access to fax machine 86. Using fax machine 86 she dials up multifunction machine 38 and, upon gaining access, she operates her Tab 16 to transmit to telephone 88 a tone signal representing the token for document A and commanding multifunction fax machine 38 to transmit document A to fax machine 86. Multifunction fax machine 38 promptly accesses document A in electronic form and sends it via telephone network 84 to fax machine 86 where it is printed out.



The disclosure of Lamming referred to in the Final Office Action above further discloses, in column 10, lines 30-36 (which refers to Fig. 6(f) reproduced below), a second embodiment for accessing and distributing electronic documents in which:

The same operation is illustrated in FIG. 6(f), with the exception that in this case fax machine 86 is equipped with its own IR transceiver 41, enabling the document token for document A to be beamed by IR from Ann's Tab 16 to transceiver 41 and then electronically conveyed from the fax machine 86 to multifunction fax machine 38.



The disclosure of Lamming referred to in the Final Office Action above in addition discloses, in column 10, lines 37-49 (which refers to Fig. 6(g) reproduced above), a third embodiment for accessing and distributing electronic documents in which:

The embodiment illustrated in FIG. 6(g) makes use of radiopaging technology. Bob is equipped with a portable electronic document transport device, i.e. a radiopager or a Tab 16 which emulates a radiopager, and while away from his office contacts Ann to let her know that he requires a copy of document A. Ann scans in document A using multifunction fax machine 38, and then commands it to transmit the document token for document A over pager network 90 to Bob's portable electronic document transport device. Bob is then able to go to any printer, fax, etc adapted to receive document tokens, and to print out a copy of document A.

Appellant respectfully traverses the rejection and maintains for the reasons provided below that Lamming taken in combination with Fogarty fails to disclose or suggest Appellant's claimed method of receiving a control module embedded in a web page or using the control module for controlling a document service request as recited in independent claims 1, 25, and 26, where claim 1 is discussed as the representative claim, which claims recite the *receipt* and *use* of a control module at a mobile computing in which:

a web page that is received from a web server at a mobile computing device (i) identifies parameters associated with a document service request, and (ii) *embeds therein a control module for communicating between a document server and an output device;*

the control module is used to (a) obtain device information identifying a type of output device available over one of two communication channels to add as a parameter to the document service request; (b) transmit the document service request to a document server over one of the two communication channels; and (c) control a connection with the document server, over a first of the two communication channels, and with the output device, over the second of the two communication channels, to transmit there between a selected document in a format suitable for the output device.

B.1 No Suggestion To Modify Or Combine The Reference Teachings

One skilled in the art would not be lead to combine Lamming and Fogarty because the purposes for which a mobile computing device is used in Lamming and Fogarty are different. These different purposes include Fogarty's use of a mobile device (or cell phone) as endpoint for information (see in Fogarty Figure 1, display devices 112, 114, and 116 and in Fogarty Figure 2, cell phone 310) while

Lamming's use of a mobile device for the purpose of enabling the exchange of information between devices (see in Lamming Figures 6(e), 6(f), and 6(g), Tab 16).

More specifically, Fogarty discloses a method for dynamically generating "a display document for a display device based on the preferences of the users and the display limitations of the display device" (see Fogarty column 10, lines 25-28), which display device may for example operate on a mobile device. Lamming in contrast discloses a mobile device that enables "easy remote access and exchange of electronic documents by transmitting and receiving document references" (see Lamming column 2, lines 48-51).

Further, the display documents disclosed in Fogarty are generated for output to an output device with a limited display device such as a mobile device (see in Fogarty Figure 2, cell phone 310). In contrast, user activity disclosed in Lamming is performed at a user interface at a mobile device for enabling the exchange of information (see in Lamming Figures 6(e), 6(f), and 6(g), Tab 16) such as between a file server and an output device.

Accordingly for the reasons set forth above, there would be no motivation to combine Lamming with Fogarty and in the event they were combined, or modified to be combined, their combination would not successfully disclose or suggest to one skilled in the art a system as recited in Appellant's independent claims 1, 25, and 26 as their combination would fail to recite receiving a web page from a web server at a mobile computing device that has embedded therein a control module for performing a document service request at the mobile device between a document server and an output device as set forth below.

B.2 Embedding or Using a Control Module Is Not Disclosed or Suggested

Appellant respectfully submits that Lamming taken together with Fogarty fail to disclose or suggest Appellant's claimed limitation, recited in independent claims 1, 25, and 26, of receiving at a mobile computing device a web page from a web server with a control module embedded therein for communicating between a document server and an output device a document in a format suitable for the output device.

Instead, Lamming as summarized above discloses different embodiments (see Lamming Fig. 6(e), 6(f), and 6(g)) for distributing documents using document tokens without the use of a control module as claimed by Appellant and as

acknowledged in the Final Office Action on page 4, lines 12-16 (as to claim 1), on page 12, lines 4-8 (as to claim 25), and on page 14, lines 16-20 (as to claim 26) that Lamming fails to teach a mobile computing device that receives “a web page from [a] web server that has embedded therein a control module for communicating between [a] document server and [an] output device with the mobile computing device using the control module”.

Unlike Lamming which enables the exchange of information using a mobile computing device (or Tab), as summarized above, Fogarty discloses a mapping system for processing a display document to conform to a display device according to viewing preferences of a user of the display device. The mapping system disclosed in Fogarty has three principal steps: localizing to remove text that can't be displayed on a user's display screen or that the user can't understand; prioritization to decide which text is most important to the user; and organization for determining actual display locations in a display view for selected information. (See Fogarty column 6, lines 19-35 and 45-63; column 7, lines 3-14; and column 9, lines 28-44.)

The principle steps performed by the mapping system of Fogarty therefore do not serve, or suggest serving, to control a connection between a document server and an output device as recited in Appellant's independent claims 1, 25, and 26. The mapping system in Fogarty instead is used to dynamically generate a display document for a display device based on the preferences of users and display limitations of the display device. Thus, Fogarty, whether taken singly or in combination with Lamming, fails to disclose or suggest using a web browser operating at a mobile computing device to receive a web page having embedded therein a control module for use at the mobile computing device as recited in independent claims 1, 25, and 26.

Consequently, Lamming taken in combination with Fogarty fail to disclose or suggest, as recited in Appellant's independent claims 1, 25, and 26, receiving a web page from a web server at a mobile computing device that has embedded therein a control module for: (a) obtaining device information at the mobile computing device for identifying a type of output device available over one of two communication channels; (b) transmitting parameters of a document service request (which includes the device information) from the mobile computing device to a document server over one of the two communication channels; and (c) controlling a connection at the

mobile computing device between the document server and the output device to transmit there between a selected document in a format suitable for the output device as summarized above.

B.3 Summary

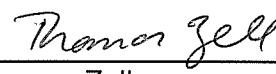
In view of the distinguishing features of Appellant's claimed invention set forth in independent claims 1, 25, and 26 discussed above, Appellant respectfully submits that independent claims 1, 25, and 26 are patentably distinguishable over Lamming in view of Fogarty as all three criteria for establishing a *prima facie* case of obviousness under 35 U.S.C. § 103(a) have not been met as shown above, which criteria as set forth MPEP § 2143 provide that: (1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine the reference teachings; (2) there must be a reasonable expectation of success; and (3) the combined references must teach or suggest all the claim limitations.

Insofar as claims 2-15 and 17-24 are concerned, these claims depend from and incorporate all of the limitations of now presumably allowable independent claim 1 and are also believed to be in allowable condition. Insofar as claim 16 is concerned, which depends from and incorporates all of the limitations of now presumably allowable independent claim 1, is also believed to be allowable over Lamming in view of Fogarty and/or Wang, as Wang concerns a method for providing basic wireless service for GSM users roaming in CDMA networks.

C. Conclusion

Based on the arguments presented above, claims 1-26 are believed to be in condition for allowance. Appellant therefore respectfully requests that the Board of Patent Appeals and Interferences reconsider this application, reverse in whole the rejection of claims 1-26, and pass this application for allowance.

Respectfully submitted,



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CLAIMS APPENDIX

CLAIMS INVOLVED IN THE APPEAL:

1. A method for controlling a document service request at a mobile computing device, comprising:

receiving a user selection directed at a first web page displayed by a web browser operating at the mobile computing device; the first web page listing document services that may be applied to a selected document identified by a document reference that is accessible on a document server communicating with a web server;

initiating, at the mobile computing device, the document service request in response to the user selection of a document service from the list of the document services available on the first web page; said initiating adding to the document service request a first parameter identifying the selected document accessible to the document server;

displaying, at the mobile computing device after initiating the document service request, a second web page with the web browser; the second web page, received from the web server, (i) identifying parameters associated with the document service request and (ii) embedding therein a control module for communicating between the document server and an output device;

obtaining, at the mobile computing device using the control module, device information identifying a type of output device available over one of two communications channels;

adding, at the mobile computing device using the control module, the device information as a second parameter to the document service request;

transmitting, from the mobile computing device using the control module, the parameters of the document service request to the document server over one of the two communications channels; and

controlling, at the mobile computing device using the control module, a connection between the document server and the output device to transmit there between the selected document in a format suitable for the output device; the mobile computing device establishing the connection with the document server over a first

of the two communications channels and with the output device over a second of the two communications channels.

2. The method according to claim 1, wherein the document server and the output device have no preexisting communications channel there between.

3. The method according to claim 1, wherein the document server and the output device have an inadequate preexisting communications channel there between.

4. The method according to claim 1, wherein the document server prepares the document identified by the first parameter in the format suitable for the output device.

5. The method according to claim 4, wherein the suitable format prepared by the document server conforms to at least one format that the output device is adapted to process.

6. The method according to claim 4, wherein the document server applies one of a document enrichment, translation, conversion, summarization, recommender service to the document before preparing the document in the suitable format.

7. The method according to claim 1, wherein the mobile computing device sets up a route between the document server and the output device.

8. The method according to claim 1, wherein the output device is one of a printer, a display, a file server, and a speaker.

9. The method according to claim 1, wherein the format suitable for the output device is a device dependent format.

10. The method according to claim 1, wherein the first of the two communications channels is an unlimited communications channel and the second of the two communications channels is a limited communications channel.

11. The method according to claim 10, wherein the two communications channels are wireless communications channels.

12. The method according to claim 10, wherein the limited communications channel is a wired communications channel and the unlimited communications channel is a wireless communications channel.

13. The method according to claim 1, wherein the first and the second of the two communications channels are limited communications channels.

14. The method according to claim 1, further comprising processing the document service request at the document server by:

locating the document identified by the first parameter of the document service request;

loading a driver corresponding to the device information specified in the document service request;

rendering the located document using the loaded driver;

storing the rendered document in a print file; and

transmitting the print file to the mobile computing device over the first of the two communications channels.

15. The method according to claim 1, further comprising applying one or more specified services to the document as part of the document service request; wherein the one or more specified services is one of a summarization service, an enrichment service, a recommender service, and a translation service.
16. The method according to claim 1, further comprising recording the document service request for accounting purposes at the mobile computing device.
17. The method according to claim 1, wherein the mobile computing device transforms the document into the format suitable for the output device.
18. The method according to claim 1, wherein the device information is obtained by executing a discovery request at the mobile computing device.
19. The method according to claim 1, wherein the device information is obtained using a profile of the output device and confirmed by executing a discovery request at the mobile computing device.
20. The method according to claim 1, wherein one of the first of the two communications channels and the second of the two communications channels of the mobile computing device is routed through a second mobile computing device having at least two communications channels.
21. The method according to claim 1, wherein the document server forms part of an input device.
22. The method according to claim 1, wherein device information identifying the type of output device available over the first communications channel is a class of service.

23. The method according to claim 22, wherein the class of service is wireless printing.

24. The method according to claim 1, wherein the first parameter and the second parameter are specified using a name of the document.

25. An article of manufacture, comprising:

a storage medium; and

program instructions stored on the storage medium for controlling a document service request on a mobile computing device having a processor; the processor in executing the program instructions:

receiving a user selection directed at a first web page displayed by a web browser operating at the mobile computing device; the first web page listing document services that may be applied to a selected document identified by a document reference that is accessible on a document server communicating with a web server;

initiating, at the mobile computing device, the document service request in response to the user selection of a document service from the list of the document services available on the first web page; said initiating adding to the document service request a first parameter identifying the selected document accessible to the document server;

displaying, at the mobile computing device after initiating the document service request, a second web page with the web browser; the second web page, received from the web server, (i) identifying parameters associated with the document service request and (ii) embedding therein a control module for communicating between the document server and an output device;

obtaining, at the mobile computing device using the control module, device information identifying a type of output device available over one of two communications channels;

adding, at the mobile computing device using the control module, the device information as a second parameter to the document service request;

transmitting, from the mobile computing device using the control module, the parameters of the document service request to the document server over one of the two communications channels; and

controlling, at the mobile computing device using the control module, a connection between the document server and the output device to transmit there between the selected document in a format suitable for the output device; the mobile computing device establishing the connection with the document server over a first of the two communications channels and with the output device over a second of the two communications channels.

26. A mobile computing device for controlling a document service request, comprising:

a memory for storing program instructions; and

a processor for executing the program instructions stored in the memory; the processor in executing the program instructions:

receiving a user selection directed at a first web page displayed by a web browser operating at the mobile computing device; the first web page listing document services that may be applied to a selected document identified by a document reference that is accessible on a document server communicating with a web server;

initiating, at the mobile computing device, the document service request in response to the user selection of a document service from the list of the document services available on the first web page; said initiating adding to the document service request a first parameter identifying the selected document accessible to the document server;

displaying, at the mobile computing device after initiating the document service request, a second web page with the web browser; the second web page, received from the web server, (i) identifying parameters associated with the

document service request and (ii) embedding therein a control module for communicating between the document server and an output device;

obtaining, at the mobile computing device using the control module, device information identifying a type of output device available over one of two communications channels;

adding, at the mobile computing device using the control module, the device information as a second parameter to the document service request;

transmitting, from the mobile computing device using the control module, the parameters of the document service request to the document server over one of the two communications channels; and

controlling, at the mobile computing device using the control module, a connection between the document server and the output device to transmit there between the selected document in a format suitable for the output device; the mobile computing device establishing the connection with the document server over a first of the two communications channels and with the output device over a second of the two communications channels.

EVIDENCE APPENDIX

NONE

RELATED PROCEEDINGS APPENDIX

NONE